

ABSTRACT

A label switching router (LSR) is disclosed in which a control label switched path (LSP) is set up on a route of LSRs, in the reverse direction of traffic, for restoration and protection. Link failure, node failure, etc., are signaled on the control LSP. Further, a process is carried out in units of LSPs (Bypass Tunnels), each of which bundles LSPs having the same switching point destination of traffic. A label is assigned to every Bypass Tunnel.